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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/070,323	08/26/2002	Magnus Carlsson	GKS CASE 375	2884
7590	05/03/2004		EXAMINER	
Flynn Thiel Boutell & Tanis 2026 Rambling Road Kalamazoo, MI 49008-1699			HAUGLAND, SCOTT J	
			ART UNIT	PAPER NUMBER
			3654	

DATE MAILED: 05/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/070,323	CARLSSON ET AL.
	Examiner Scott Haugland	Art Unit 3654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 1/26/04.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 41-60 is/are pending in the application.
- 4a) Of the above claim(s) 51 and 60 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 41-50 and 52-59 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____.
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____.

DETAILED ACTION

Election/Restrictions

Claims 51 and 60 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 9.

Specification

The substitute specification filed 1/26/04 has been entered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 58 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The language "without a galvanic connection" in claim 58, line 4 is inaccurate since an electrical connection is disclosed between the pick-up head P and the yarn feeding device (e. g., at C).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 41-50, 52-57, and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Colonel (European patent document No. EP 0 863 236 A1) in view of Robertson (U.S. Patent No. 3,164,333).

Colonel discloses a yarn processing system comprising a yarn consuming textile machine (loom; col. 2, lines 36-37), a yarn feeding device 1 upstream of the textile machine, and a supply spool 15 upstream of the yarn feeding device 1. The yarn feeding device pulls yarn off of the supply spool with varying speed and maintains an intermediate store of yarn which covers consumption demand of the textile machine (col. 2, lines 32-37; col. 3, line 58 - col. 4, line 5). Resistance to feeding of the yarn to the yarn feeding device is provided by braking device 19. A winding drive of the yarn feeding device includes motor 4. Motor 4 of the yarn feeding device is controlled by signals from sensor 20, 22 that monitors the quantity of yarn in the yarn feeding device (col. 4, lines 38-43).

Colonel does not disclose that the rotational resistance of the supply spool is actively regulated.

Robertson teaches providing an apparatus for supplying a strand to a utilization device with means including brake 14 and associated controls for actively regulating the rotational resistance of a strand supply spool 10. The brake is activated by a pneumatic cylinder 20 (note air supply in Fig. 1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the yarn feeding apparatus of Colonel with means for actively regulating the rotational resistance of the supply spool as taught by Robertson to provide improved control over the tension in the strand removed from the supply spool and reducing overrunning of the supply spool. The claimed method would have been inherent in the operation of the modified apparatus of Colonel. The resulting apparatus detects speed variations of the winding drive of Colonel by detecting tension variations as required by claims 41 and 52.

With regard to claim 42, active braking of the supply spool until it stops would inherently occur in the apparatus of Colonel as modified when the winding drive of the yarn feeding apparatus is switched off since the tension in the yarn would decrease, causing the brake to be applied.

With regard to claim 43, the braking action and resulting tension maintained thereby disclosed by Colonel and taught by Robertson would

inherently contribute to the stopping of the winding drive of the yarn feeding apparatus.

With regard to claims 48 and 57, there would inherently be a delay in the increase in resistance or an increase in resistance along a ramp function in the modified apparatus of Colonel because of the inherent characteristics of the control system and brake taught by Robertson or any equivalent system.

With regard to claim 50, the apparatus would inherently decrease the rotational resistance of the supply spool prior to the occurrence of one of the recited events upon an increase in detected tension at that time.

With regard to claim 56, the braking device of the modified apparatus of Colonel would be disengaged when a minimum size signal causes the winding drive of the yarn feeding device to restart and increase tension in the yarn.

Claim 58 is rejected under 35 U.S.C. 103(a) as being unpatentable over Colonel in view of Robertson as applied to claims 32 and 34-36 above, and further in view of Hellstroem (U.S. Patent No. 4,617,971).

Colonel does not disclose an external pick-up head for detecting a run or stop signal.

Hellstroem teaches providing a yarn feeding device with an external pick-up head 6-9 for detecting a stored quantity of yarn to detect run or stop signals for controlling a winding drive of the yarn feeding device.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the yarn processing system of Colonel with an external pick-up head as taught by Hellstroem to detect a run or stop signal for controlling the winding drive motor for the yarn feeding device to provide greater reliability of the sensor and reduce cost.

Response to Arguments

Applicant's arguments filed 1/26/04 have been fully considered but they are not persuasive.

Applicants argue that it would not have been obvious to one of ordinary skill in the art to modify Colonel's device to include Robertson's tension control system since the devices are used for significantly different materials, specifically, the device of Colonel is used for yarn having a relatively small mass per unit of length and Robertson's is used for web or strand having a relatively large mass per unit length. Applicants further argue that the device of Colonel operates in alternating stop and go modes, while the Robertson device operates in a startup phase followed by a continuous running phase.

However, Robertson's disclosure is not limited to strand having relatively large mass per unit length and Robertson's teachings apply to control and handling of materials being unwound from rolls in general. It would have been clear to an ordinary artisan that there would be a tendency for supply roll 15 of Colonel to overrun due to the intermittent operation of the winding device and that some type of restraint or drag on the supply roll that is responsive to the variations in yarn feed rate would be desirable in practice. Robertson suggests the use of a brake controlled in response to material tension (which provides an indication of an overrunning condition) to provide drag on a supply reel.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Haugland whose telephone number is (703) 305-6498. The examiner can normally be reached on Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy Matecki can be reached on (703) 308-2688. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

sjh
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4/26/04

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